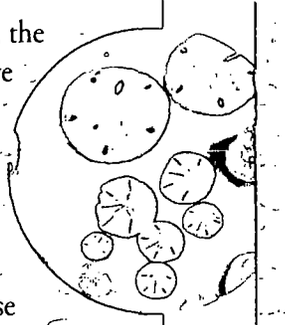
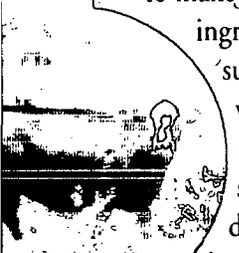
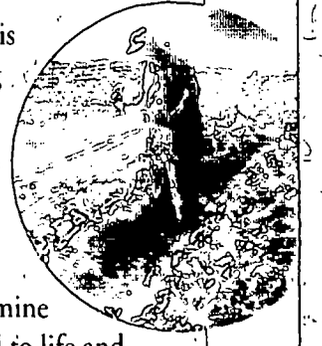


Many millions of years ago, the ocean flooded the area we now call Florida shaping and landscaping the state. As the water retreated, billions of phosphate particles formed, possibly from the remains of sea life, and were deposited on the land. These particles, along with sand and clay, settled into strata in varying depths and eventually were buried under tons of sandy soil.

Today we mine this phosphate in order to make fertilizer to grow food, and as an ingredient in a variety of other consumer products. In order to do so, we must uncover and extract these phosphate deposits buried so long ago. This brochure describes the mining process from beginning to reclamation.



Phosphate mining and processing is one of Florida's most important industries, contributing billions of dollars to the state's economy each year in the form of jobs, taxes, purchases of goods and services, and capital investments.



The phosphate industry is proud of its role in providing food to meet ever-expanding global needs, as well as its valuable economic contributions to Florida. But most important, the industry is prouder still of its ability to mine this vital nutrient so essential to life and then with respect and regard for the environment reclaim the land for other uses.

phosphate feeds you

Florida Phosphate Council

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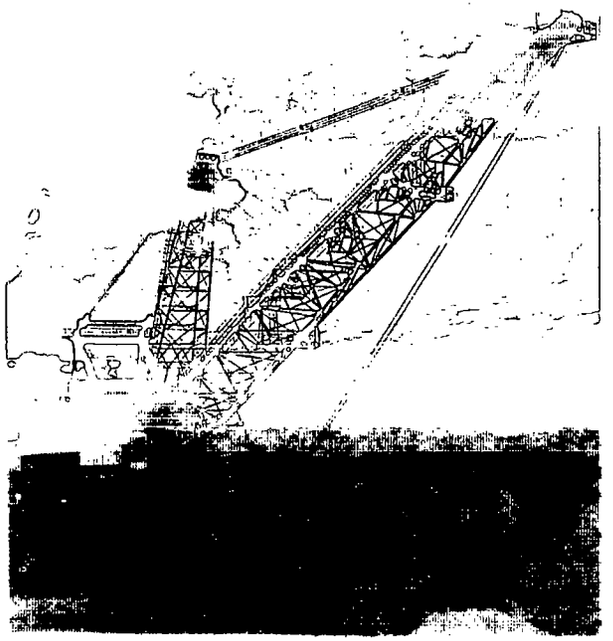
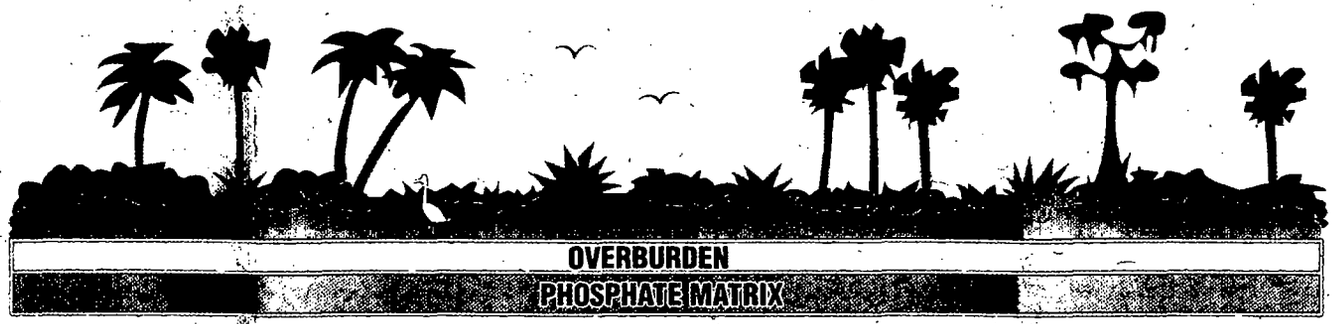
VIS TO A FLORIDA PHOSPHATE MINE



phosphate feeds you

PHOSPHATE FROM FLORIDA



1 UNMINED LAND

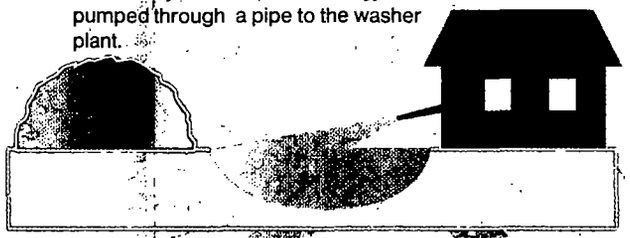
Florida phosphate ore is often found under scrub land. The land usually has top layer of soil (called **overburden**) about 25 ft. thick. This overburden covers the **phosphate matrix** – a layer of phosphate rock mixed with clay and sand.

2 DRAGLINE

A huge dragline machine scoops off the **overburden**. This soil is put to one side. Then the dragline digs out the **phosphate matrix**.

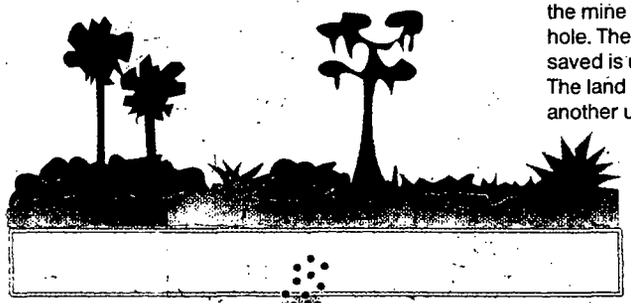
3 PIT CAR

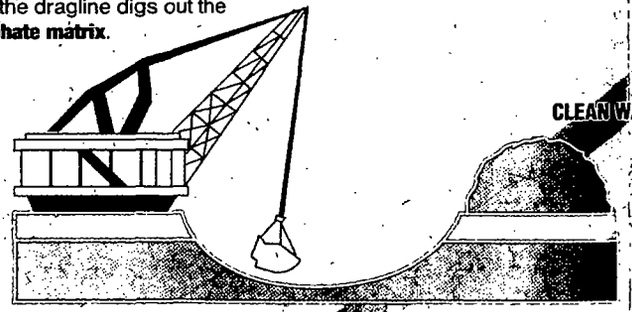
The dragline puts the **phosphate matrix** in a pit close by. Hoses on a portable pit car mix water with the matrix. This watery mixture (called **slurry**) is pumped through a pipe to the washer plant.

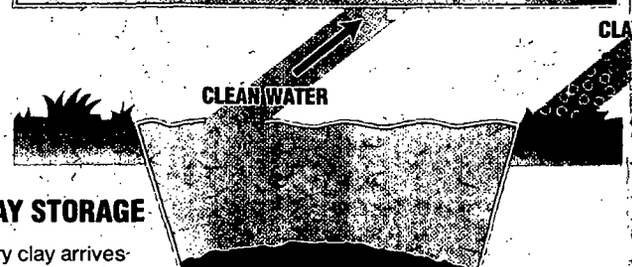


9 RECLAMATION

The **sand tailings** pumped back to the mine are used to fill in the mine hole. The **overburden** that was saved is used to cover the sand. The land can then be **reclaimed** for another use.







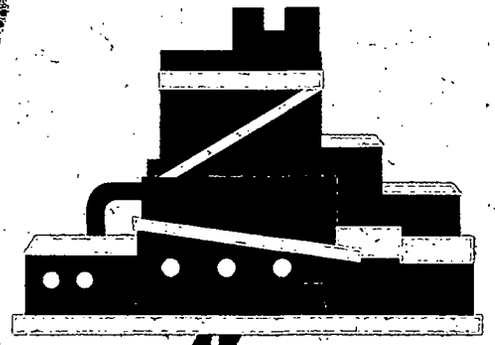
4 WASHER

SLURRY

At the washer plant, the **slurry** goes into larger washers. The rock is shaken on vibrating screens. Any large phosphate pebbles are sent to **rock storage** piles. The tiny bits of phosphate mixed with sand (called **feed**) pass through the screens and go on to the **flotation machine**. The clay stays in the water and is pumped to a clay settling pond.

CLAY AND WATER

SAND TAILINGS



FEED

PHOSPHATE PEBBLES

5 CLAY STORAGE

The watery clay arrives at a **settling pond**. Here, it is stored while the clay slowly settles to the bottom. Clear water is drawn off the top of the pond. The water is pumped back to the mines and used again. When the pond isn't needed any longer, it dries up and the land is reclaimed.

6 FLOTATION MACHINE

The **feed** is mixed with substances that help separate the tiny pieces of phosphate rock from the sand. The separated phosphate rock is sent to **rock storage**. The sand (called "**sand tailings**") is pumped back to the mining area.

FINE PHOSPATE

8 PROCESSING FACTORY

Most phosphoric rock is moved by truck or train to a processing factory. There, it is made into a substance used mostly in **fertilizer** and **animal feed**.

7 PHOSPHATE ROCK STORAGE

Phosphate pebbles (from the washer) and fine phosphate (from the flotation plant) are stored in piles outdoors.